



A.D. 1875,

3rd July.

N^o 2411.

SPECIFICATION

OF

GEORGE CHARLES WORDSWORTH.

RESPIRATORS.

LONDON:

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A.D. 1875, *3rd JULY.* N° 2411.

Respirators.

LETTERS PATENT to Hewley Charles Wordsworth, of No. 5^a, Sloane Street, Knightsbridge, in the County of Middlesex, for the Invention of “**IMPROVEMENTS IN RESPIRATORS.**”

Sealed the 26th November 1875, and dated the 3rd July 1875.

PROVISIONAL SPECIFICATION left by the said Hewley Charles Wordsworth at the Office of the Commissioners of Patents, with his Petition, on the 3rd July 1875.

I, HEWLEY CHARLES WORDSWORTH, of No. 5^a, Sloane Street,
5 Knightsbridge, in the County of Middlesex, do hereby declare the nature of the said Invention for “**IMPROVEMENTS IN RESPIRATORS,**” to be as follows:—

The object of the Invention is to construct respirators of material and in manner such that will facilitate their entire cleansing whenever
10 the wearer may think desirable. For this purpose I form the case or enclosing portions of tortoiseshell, horn, ebonite, or vulcanite, or such like material, glass, earthenware, ivory, wood, or other suitable material

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that will not readily become discolored by the action of the atmosphere and moisture. The outer part of this case I produce of the usual curved form at the inner edge of it to suit the form of the part of the face surrounding the mouth to which it is to be applied, and from these edges this outer portion is recessed to form a chamber to receive cotton, 5 wool, or other suitable material, and an enclosing shield.

The cotton, wool, or other fibrous material may be prepared or medicated as desired.

The outer case is perforated with holes, through which respiration takes place, and it is attached by elastic or other bands, and the inner 10 plate or shield, formed of the like material, is also perforated or formed of openwork, and it is held in position by being sprung in under slightly projecting ledges or holding parts of the outer case. By these means the necessity for the use of cushions at the edges and of an outer covering of fabric is avoided, as also is the inconvenience and un- 15 pleasantness arising from such cushioning and covering soon becoming moistened, whilst every facility is afforded for frequent and entire cleansing, and increased lightness is obtained.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Hewley Charles Wordsworth in the Great Seal 20 Patent Office on the 1st January 1876.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, HEWLEY CHARLES WORDSWORTH, of No. 5^a, Sloane Street, Knightsbridge, in the County of Middlesex, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her 25 Letters Patent, bearing date the Third day of July, in the year of our Lord One thousand eight hundred and seventy-five, in the thirty-ninth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Hewley Charles Wordsworth, Her special license, that I, the said Hewley Charles Wordsworth, my exe- 30 cutors, administrators, and assigns, or such others as I, the said Hewley Charles Wordsworth, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all

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times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for “IMPROVEMENTS IN RESPIRATORS,” upon the condition
5 (amongst others) that I, the said Hewley Charles Wordsworth, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the
10 Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Hewley Charles Wordsworth, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained
15 in and by the following statement thereof, that is to say :—

The object of the Invention is to construct respirators of material and in manner such that will facilitate their entire cleansing whenever the wearer may think desirable. For this purpose I form the case or enclosing portions of tortoiseshell, horn, ebonite, or vulcanite, or such
20 like material, glass, earthenware, ivory, wood, or other suitable material that will not readily become discolored by the action of the atmosphere and moisture, and I find what is called ebonite or vulcanite the most convenient for the purpose, as the parts are readily formed by moulding or stamping. The outer part of this case I produce of the usual curved
25 form at the inner edge of it to suit the form of the part of the face surrounding the mouth to which it is to be applied; and from these edges this outer portion is recessed to form a chamber to receive cotton, wool, or other suitable material, and an enclosing shield.

The cotton, wool, or other fibrous material employed may be prepared
30 or medicated as desired.

The front part of the outer case opposite the mouth is perforated with holes, through which respiration takes place; and this case is attached to the wearer by elastic or other bands. The inner plate or shield formed of the like material is also perforated or formed of openwork,
35 and it is held in position by being sprung in under slightly projecting ledges or holding parts of the outer case. By these means the necessity for the use of cushions at the edges and of an outer covering of fabric

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is avoided, as also is the inconvenience and unpleasantness arising from such cushioning and covering soon becoming moistened, whilst every facility is afforded for frequent and entire cleansing. Increased lightness is also obtained.

But that the Invention may be fully understood I will by the aid of 5 the accompanying Drawings proceed to describe means pursued by me in carrying the same into effect.

DESCRIPTION OF THE DRAWINGS.

Figures 1, 2, 3, and 4 show an external view, an internal view, an edge view, and a section of one arrangement of parts according to my 10 Invention; Figures 5, 6, 7, 8, 9, 10, 11, and 12 show separate views of the respective parts.

In each of the views the same letters of reference indicate corresponding parts.

a , a , is the outer portion of the case; a^1 is the recessed portion, 15 forming a chamber to receive cotton, wool, or other suitable material; and in some cases I apply fine woven wirework or finely perforated metal of the character of that ordinarily employed in the manufacture of respirators. The part a^2 is that perforated with numerous fine holes for the purpose of respiration; b is an inner plate or shield similarly 20 perforated and formed of the like or other material. Ivory I find to answer well for this inner plate or shield, and it serves to enclose the cotton, wool, or other fibrous or other material used as a filter; and this shield b may be attached to so as to form part of a moveable ring or rim c , or be separate therefrom. This ring or rim c is formed to fit 25 somewhat closely in the recess a^1 of the outer portion a , and it may be further held securely to the part a by elastic or other cords d , d , passed through holes formed for the purpose in both the parts a and c , and serving to hold the respirator on the face of the wearer. By these means the parts are readily separable to facilitate cleansing thereof. 30

Having thus described my Invention, and means which I adopt in carrying the same into effect, I would have it understood that I do not confine myself to the precise arrangements of parts, as shown and described, as the same may be varied without departing from the peculiar character of the Invention; but what I do claim is, the manu- 35

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facture of the parts of respirators of materials, such as stated, that will not readily become discolored or injuriously affected by moisture, as described.

5 In witness whereof, I, the said Hewley Charles Wordsworth, have hereunto set my hand and seal, this Thirty-first day of December. in the year of our Lord One thousand eight hundred and seventy-five.

H. C. WORDSWORTH. (L.S.)

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1876.



